

Application No.: 10/582,468
Filing Date: March 23, 2007

REMARKS

In response to the Office Action mailed August 5, 2010, Applicant respectfully requests the Examiner to reconsider the above-captioned Application in view of the foregoing amendments and the following remarks. By this paper, Applicant has added new Claims 19-20. Accordingly, Claims 1, 3-10, 14-16, and 18-20 are currently pending in the present Application.

Prior Art Rejections

Claims 1, 3-6, 9-10 and 14-15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Blanquaert. Claims 7-8, 16, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Blanquaert in view of Sachdeva

Applicant respectfully traverses this rejection and submits that the pending claims are in condition for allowance. As will be explained in detail below, the rejection is improper because does not disclose a dental implant as recited in independent Claim 1. Blanquaert is also silent regarding the amount of anatase provided. Accordingly, Applicant respectfully requests that the present rejection of the pending claims be withdrawn and that these claims be indicated as allowable.

Blanquaert is directed to a large titanium alloy pin for use with long bones, such as the femur, the tibia, the fibula, or the humerus, and in particular, for prosthesis of the knee or hip. *See* Blanquaert, Abstract and col. 3, lines 2-7. However, Blanquaert does not disclose a dental component as recited in Claim 1. Applicant notes that the interpretation of the claims must be consistent with the interpretation that those skilled in the art would reach consistent with Applicant's disclosure. M.P.E.P. §2111. Applicant respectfully submits that one skilled in the art would not interpret the alloy pin of Blanquaert as comprising a dental component as recited in Claim 1 and described in the present Application. Blanquaert's disclosed pin is simply too large to be considered by one of skilled in the art as a dental component. For at least this reason, Applicant submits that the rejection of Claim 1 as being anticipated by Blanquaert is in error.

In addition, Blanquaert does not disclose a layer comprising 70-100% anatase. The Office Action assumes that the mere mention of "anatase" in Blanquaert meets the claimed limitation. Applicant respectfully disagrees. As noted in the personal interview of February 25, 2010, it is difficult to obtain layers of "70-100% anatase" because anatase often exists as a

transition between the amorphous phase of titanium oxide and the rutile phase of titanium oxide. Accordingly, “anatase” in the art can often simply refer to a layer with anatase as the largest component. Accordingly, Applicant respectfully submits that it is improper to assume that Blanquaert inherently discloses a layer of 70-100% anatase.

Applicant also submits that it would not be obvious to modify Blanquaert to meet the “dental component” limitation of Claim 1. In particular, Blanquaert discloses that the pin can be coated with a “long-lasting protective coating of titanium oxide. The simplest means of forming this coating is to proceed by anodic oxidation at 20 to 200 volts, . . . the process being continued until a surface layer of anatase of 3000 to 3500 angstroms is formed.” Blanquaert, col. 2, lines 47-53. As previously discussed with the Examiner in the prior interview, the type of process described creates excessive heating of the subject part. Temperatures that exceed 400°C can adversely affect the final layer. However, for a large part, such as the pin disclosed in Blanquaert, it is much easier to maintain the subjected part below a certain temperature. However, a dental component, such as a dental implant, is significantly smaller than the pin of Blanquaert and Blanquaert does not provide any teaching or suggestion for how to apply such techniques to such a small component. Accordingly, one of skill in the art would not interpret Blanquaert’s disclosure as applying to a small component, such as a dental component.

Finally, the motivation for Blanquaert to use a titanium dioxide coating is to give the assembly a “long-lasting protective coating.” Col. 2, line 46. This is desired because in Blanquaert, a lattice formed of a titanium wire is separate from and later welded onto the pin. Thus, the coating helps secure the assembly. In contrast, in a dental component, the desire is to promote osseointegration. Thus, one of skill in the art would not be motivated to apply to the coating of Blanquaert to a dental component.

In summary, Applicant respectfully submits that Blanquaert fails to disclose a dental component comprising, *inter alia*, “one or more titanium dioxide layers applied on at least one outer surface of the dental component, wherein between about 70-100% of each layer comprises crystalline titanium dioxide in the anatase phase,” as recited in Claim 1. Moreover, there is no motivation in Blanquaert to apply an “anatase” layer to a dental component. Thus, Applicant respectfully submits that Claim 1 is not anticipated by Blanquaert. Therefore, Applicant requests that the rejection of Claims 1, 3-6, 9-10 and 14-15 be withdrawn.

Application No.: 10/582,468
Filing Date: March 23, 2007

Applicant notes that Claims 7-8, 16, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Blanquaert in view of Sachdeva. Applicant respectfully traverses this rejection and submits that these claims should be allowable based on their own merit and for at least the reason that these claims depend from allowable independent claims. Blanquaert and Sachdeva do not disclose, teach or suggest the above noted features in independent Claim 1. Accordingly, Applicant requests that the rejection of Claims 7-8, 16, and 18 be withdrawn and that these claims be indicated as allowable over the art of record.

New Claims

Applicant has added new Claims 19-20. Claim 19 recites in part, a dental implant that comprises “at least one thread extending along a body of the implant, the dental implant further comprising one or more titanium dioxide layers applied on at least one outer surface of the dental implant, wherein between about 70-100% of each layer comprises crystalline titanium dioxide in the anatase phase,” and, for at least this reason, is also in condition for allowance. Claim 20 depends upon Claim 19 and for at least this reason are in condition for allowance.

No Disclaimers or Disavowals

Although the present communication may include alterations to the Application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this Application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this Application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present Application.

CONCLUSION

Applicant respectfully submits that the above rejections and objections have been overcome and that the present Application is now in condition for allowance. Therefore,

Application No.: 10/582,468
Filing Date: March 23, 2007

Applicant respectfully requests that the Examiner indicate that Claims 1, 3-10, 14-16, and 18-20 are now acceptable and allowed. Accordingly, early issuance of a Notice of Allowance is most earnestly solicited.

Applicant respectfully submits that the claims are in condition for allowance in view of the above remarks. Any remarks in support of patentability of one claim, however, should not be imputed to any other claim, even if similar terminology is used. Additionally, any remarks referring to only a portion of a claim should not be understood to base patentability on that portion; rather, patentability must rest on each claim taken as a whole. Applicant respectfully traverses each of the Examiner's rejections and each of the Examiner's assertions regarding what the prior art shows or teaches, even if not expressly discussed herein. Although amendments have been made, no acquiescence or estoppel is or should be implied thereby. Rather, the amendments are made only to expedite prosecution of the present Application, and without prejudice to presentation or assertion, in the future, of claims on the subject matter affected thereby. Applicant also has not presented arguments concerning whether the applied references can be properly combined in view of, among other things, the clearly missing elements noted above, and Applicant reserves the right to later contest whether a proper reason exists to combine these references and to submit indicia of non-obviousness.

The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the claim and drawings in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call Applicant's attorney in order to resolve such issue promptly.

Application No.: 10/582,468
Filing Date: March 23, 2007

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: November 4, 2010

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